

**EXECUTIVE ENGINEER,
VISHNUPURI PUMP HOUSE DIVISION,
YANTRIKI BHAVANPARISAR,JANGAMWADI, NANDED-431605.
PHONE NO.(02462)260738E-Mail : vphdn@rediffmail.com**

No.VPHDN/TS-3/B.O.-2/ 80/2021-22

Date: 17/01/2022

Budgetary Offer Notice No. 04 Year 2021-22

This office invites budgetary offer for the work of

Name of work:- 1) Design, Manufacture, Supply, Erection, Testing, and Commissioning of forced water lubricated V. T. Pump sets 5 Nos. of 1016 H.P. and 840 KW 50Hz, 6.6 KV, 750 RPM V.T.Squirrel cage induction motor 5 nos each with allied Electro-mechanical Equipments complete for Bramhgavhan Lift Irrigation Scheme Part-3, Stage 1, Tq. Gangapur, Dist. Aurangabad

2) Design, Manufacture, Supply, Erection, Testing, and Commissioning of forced water lubricated V. T. Pump sets 4 Nos. of 650 H.P. and 530 KW 50Hz, 6.6 KV, 1000 RPM V.T.Squirrel cage induction motor 5 nos each with allied Electro-mechanical Equipments complete for Bramhgavhan Lift Irrigation Scheme Part-3, Stage 2, Tq. Gangapur, Dist. Aurangabad

The details of scope of work are as per schedule below. Interested experienced registered Mechanical&ElectricalContractors are requested to submit the budgetary offer for the mentioned work duly stamped & signed by competent authority. The budgetary offer should reach to this office **by post** on or before date **15/02/2022 up to 05:00 pm**. Please note budgetary offer is invited only for the estimation purpose. It does not give any assurance regarding floating of tender or otherwise.

1.Details Of Work:- Mechanical & Electrical

Name of work:- Design, Manufacture, Supply, Erection, Testing, and Commissioning of forced water lubricated V. T. Pump sets 5 Nos. of 1016 H.P. each with allied Electro-mechanical Equipments complete for Bramhgavhan Lift Irrigation Scheme Part-3, Stage 2, Tq. Gangapur, Dist. Aurangabad

Mechanical Part-A

Sr. No.	Specification of items as PER Our requirement	UOM	Qty	unit price	Total Amount
1	2	3	4	5	6
1	<p>ITEM NO. 1 : Vertical turbine pump (Forced water lubricated) : Providing, installing at of works & giving test to full capacity, vertical turbine pumps, non pull out type, complete with strainer, suction bell column assembly, Discharge case/Discharge Tee motor stool, filexible coupling, sole plates, base frame foundation, non reversible-rotation ratchet arrangement etc. suitable for following duties :</p> <p>a) Duty point Discharge = 0.8183 m³/sec. b) Duty point head = 82.74 m c) rpm (syn) = 750 d) Efficiency 1) Bowl Efficiency = 92% 2) Pump Efficiency = 90% 3) Overall Efficiency = 89%</p>	Nos	5		

	<p>e) Head range = 62 to 92 m</p> <p>f) Lubrication system = Forced water lubrication</p> <p>g) Column pipe thickness (min.) = 12 mm</p> <p>h) No. of impeller stage = 2 stage</p> <p>i) Column pipe dia. (min) = 750 mm</p> <p>k) Line shaft dia. (min) = 100 mm</p> <p>l) Dia bell mouth dia = 900 mm</p> <p>m) Max. No. of pumps working in parallel = 5 m as per detail specifications.</p>				
1a	<p>ITEM NO. 2 :</p> <p>Forced water lubrication system with Two Nos. of booster pump & two nos. of pressure filters & allied equipments all.</p>	set	1		
2	<p>ITEM NO.3 :</p> <p>Non-Return Valves :</p> <p>Providing, installing at site of works & testing cast steel, non slam, double flanged Non Return Valve with bypass arrangements complete suitable for following duties. Specifications & confirming to detailed specifications.</p> <p>a) Diametere = 750 mm b) P.N. Rating = 2.0</p> <p>c) Working pressure = 16 kg/sq.cm d) Differentail working pressure = 40 kg/sq e) Maximum working pressure = 40 kg/sq.cm</p> <p>f) maximum rate of flow in LPS = 818.3 lit/sec.</p>	Nos	5		
3	<p>ITEM NO.4 :</p> <p>Butterfly valve :</p> <p>Providing installing at site fo works & testing double flanged Butterfly vales confirming to relevant IS/BS 5155 with electric acctuators with 415 Volt A.C. motors D.O.L. starting etc. complete suitable for following duties. Specifications & confiring to detailed specifications.</p> <p>a) Diametere = 750 mm b) P.N. Rating = 2.0 c) Working pressure = 16 kg/sq.cm d) Differentail working pressure = 40 kg/sq.cm e) Maximum working pressure = 40 kg/sq.cm</p> <p>f) Maximum rate of flow in LPS = 818.3 lit./sec</p>	Nos	5		
4	<p>ITEM NO.5 :</p> <p>kinetic air valve :</p> <p>Providing, installing at site of works & testing Kinetic air Valves of 200 mm. Dia. For releasing air from the delivery pipe etc. Complete as per detailed specifications.</p>	Nos	5		
5	<p>ITEM NO.6 :</p> <p>Delivery pip Line :</p> <p>Providng & jointing at site of works & testing Delivery Pipe lines including jointing of all in between valves and upto rising main/manifold complete suitable for following duties. Specification & confirming to detailed specifications.</p> <p>a) diametere = 750 mm b) wall thcikness = 12 mm</p>	MTRS	100		

6	ITEM NO.7 : Bellow Type Expantion joint (EJ) :(Mettalic) Providng & jointing at site of workss & testing of telescopic Bellow Type Expantion joint (EJ) in pump Delivery pipe Lines of 750 mm PN- 2.0 complete as per detailed specifications.	Nos	5		
7	ITEM NO. 11 : Spare & Tools : Providing at site of works tools & spares complete as per detailed specifications.	set	1		
8	ITEM NO. 17 : Water level Indicator : Providing installing at site of works & testing water level indidcators operating on 230Volts, 50Hz, A.C. supply as per detailed specification. (Ultrasonic)	Nos	1		
9	ITEM NO. 20 : E.O.T. CRANE : Design, manufacturing, Installing at site of work & giving test to full capacity as per detailed specifications. A) E.O.T. crane 16/5 M Ton b) 9.0 m span & 23 m verticle lift c) Rails - 20 m tentatively and d) DSL Electric system e) Erection, Commissiioning and testing at site f) Tools & tackles.	Nos	1		

Electrical Part-B

Sr No	Perticulars of work	Qty	Unit	Rate	Amount
1	ITEM NO. 1 :- Induction Motors (H.T. Motors) A)Design, Manufacture, Supply, Erection, Testing, Commissioning & installing at site of works & giving test & trail to full capacity, Solid shaft vertical end, squirrel cage induction motors, F class insulation & temp rise limited to B class suitable for operation on voltage mentioned below. 3 phase:50Hz with voltage variation of $\pm 6\%$ frequency variation $\pm 3\%$, suitable for direct coupling with pumps as per rest version of IS 325 IS 4722 & other relevant IS specifications to meet the power requirement of the pumps (having capacity 1016HP) with 5% additional capacity over entire operating range suitable for following duties. Operating voltage =6.6kv. KW Rating of motor=840 KW (OUT PUT POWER) Motor efficiency = 95 % (Min.) RPM =750. Starter = Operated on FCMA Soft Starter.	5	Nos		

2.Details Of Work:- Mechanical & Electrical

Name Of Work:- 1) Design, Manufacture, Supply, Erection, Testing, and Commissioning of forced water lubricated V. T. Pump sets 4 Nos. of 650 H.P. and 530 KW 50Hz, 6.6 KV, 1000 RPM V.T.Squirrel cage induction motor 5 nos each with allied Electro-mechanical Equipments complete for Bramhgavhan Lift Irrigation Scheme Part-3, Stage 2, Tq. Gangapur, Dist. Aurangabad

Mechanical Part-A

Sr. No.	Specification of items as PER Our requirement	UOM	Qty	unit price	Total Amount
1	2	3	4	5	6
1	<p>ITEM NO. 1 : Vertical turbine pump (Forced water lubricated) : Providing, installing at of works & giving test to full capacity, vertical turbine pumps, non pull out type, complete with strainer, suction bell column assembly, Discharge case/Discharge Tee motor stool, filexible coupling, sole plates, base frame foundation, non reversible-rotation ratchet arrangement etc. suitable for following duties :</p> <p>a) Duty point Discharge = 0.5625 m³/sec. b) Duty point head = 74.03 m c) rpm (syn) = 1000 d) Efficiency 1)Bowl Efficiency = 92% 2) Pump Efficiency = 90% 3) Overall Efficiency = 86% e) Head range = 55 to 82 m f) Lubrication system = Forced water lubrication g) Column pipe thickness (min.) = 10 mm h) No. of impeller stage = 2 stage i) Column pipe dia. (min) = 650 mm k) Line shaft dia. (min) = 85 mm l) Dia bell mouth dia = 800 mm m) Max. No. of pumps working in parallel = 4 m as per detail specifications.</p>	Nos	4		
1a	<p>ITEM NO. 2 : Forced water lubrication system with Two Nos. of booster pump & two nos. of pressure filters & allied equipments all.</p>	set	1		

2	<p>ITEM NO.3 : Non-Return Valves : Providing, installing at site of works & testing cast steel, non slam, double flanged Non Return Valve with bypass arrangements complete suitable for following duties. Specifications & confirming to detailed specifications. a) Diametere = 600 mm b) P.N. Rating = 1.6 c) Working pressure = 14 kg/sq.cm d) Differentail working pressure = 30 kg/sq e) Maximum working pressure = 30 kg/sq.cm f) maximum rate of flow in LPS = 562.5 lit/sec.</p>	Nos	4		
3	<p>ITEM NO.4 : Butterfly valve : Providing installing at site fo² works & testing double flanged Butterfly vales confirming to relevant IS/BS 5155 with electric acctuators with 415 Volt A.C. motors D.O.L. starting etc. complete suitable for following duties. Specifications & confiring to detailed specifications. a) Diametere =600 mm b) P.N. Rating = 1.6 c) Working pressure = 14 kg/sq.cm d) Differentail working pressure = 30 kg/sq.cm e) Maximum working pressure = 30 kg/sq.cm f) Maximum rate of flow in LPS = 562.5 lit./sec</p>	Nos	4		
4	<p>ITEM NO.5 : kinetic air valve : Providing, installing at site of works & testing Kinetic air Valves of 120 mm. Dia. For releasing air from the delivery pipe etc. Complete as per detailed specifications.</p>	Nos	4		
5	<p>ITEM NO.6 : Delivery pip Line : Providng & jointing at site of works & testing Delivery Pipe lines including jointing of all in between valves and upto rising main/manifold complete suitable for following duties. Specification & confirming to detailed specifications. a) diametere = 600 mm b) wall thcikness = 10 mm</p>	MTRS	100		
6	<p>ITEM NO.7 : Bellow Type Expantion joint (EJ) :(Mettalic) Providng & jointing at site of workss & testing of telescopic Bellow Type Expantion joint (EJ) in pump Delivery pipe Lines of 600 mm PN- 1.6 complete as per detailed specifications.</p>	Nos	5		

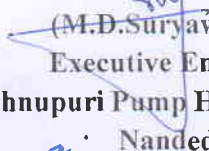
7	ITEM NO. 11 : Spare & Tools : Providing at site of works tools & spares complete as per detailed specifications.	set	1		
8	ITEM NO. 17 : Water level Indicator : Providing installing at site of works & testing water level indicators operating on 230Volts, 50Hz, A.C. supply as per detailed specification. (Ultrasonic)	Nos	1		
9	ITEM NO. 20 : E.O.T. CRANE : Design, manufacturing, Installing at site of work & giving test to full capacity as per detailed specifications. A) E.O.T. crane 12/5 M Ton b) 8.0 m span & 15 m verticle lift c) Rails - 16 m tentatively and d) DSL Electric system e) Erection, Commissioning and testing at site f) Tools & tackles.	Nos	1		
10	ITEM NO. 24 : Testing, Commissioning, Trials & Operations of the complete equipments & Performance tests & training departmental staff as per detailed specifications.	job	1		

Electrical Part-B

Sr No	Perticulars of work	Qty	Unit	Rate	Amount
1	ITEM NO. 1 :- Induction Motors (H.T. Motors) A)Design, Manufacture, Supply, Erection, Testing, Commissioning & installing at site of works & giving test & trail to full capacity, Solid shaft vertical end, squirrel cage induction motors, F class insulation & temp rise limited to B class suitable for operation on voltage mentioned below. 3 phase 50Hz with voltage variation of $\pm 6\%$ frequency variation $\pm 3\%$, suitable for direct coupling with pumps as per rest version of IS 325 IS 4722 & other relevant IS specifications to meet the power requirement of the pumps (having capacity 650HP) with 5% additional capacity over entire operating range suitable for following duties. Operating voltage =6.6 kv. KW Rating of motor=530 KW (OUT PUT POWER) Motor efficiency = 95 % (Min.) RPM =1000. Starter = Operated on FCMA Soft Starter.	4	Nos		

TERMS AND CONDITIONS

- 1] Detail rate analysis should be submitted with your quotation.
- 2] The rates of budgetary offers should be inclusive of Transportation Charges, testing, etc. GST should be mentioned separately.
- 3] The rate should be quoted considering scope of work by actual site visit, inspection & familiarizing site condition.
- 4] Budgetary offer published on wrd.maharashtra@gov.in and news paper. .
- 5] Supplier / Contractor should consider all necessary material to complete above work at above mentioned site.
- 6] The Budgetary rates are for Estimation purpose only it should not give assurance for work.


(M.D. Suryawanshi)
Executive Engineer
Vishnupuri Pump House Division
Nanded.

Copy submitted to the Superintending Engineer, Mechanical Circle Nanded for favour of information please.

Copy -Dy. Engineer, Mechanical sub div(VP) Asarjan Nanded for information and necessary action.

Copy -Dy. Engineer, Electrical sub div(VP) Asarjan Nanded for information and necessary action.

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